Reza Nourbakhsh

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SUMMARY

Detail-oriented software developer, skilled in **C++, C#, JavaScript**, and **.NET**, with experience in **front-end** and **back-end** development. Proficient in **ASP.NET Core** and Web technologies (**HTML5, CSS, Angular, Typescript**), with a strong background in **SQL Server** and familiarity with **MongoDB**. Collaborative team player committed to delivering clean and error-free code to enhance organizational productivity.

SKILLS

- C# : ★★★★★ (Expert)
- JavaScript : ★★★★⯪ (Advanced)
- C++ : ★★★★☆ (Experienced)
- Asp Net Core : ★★★★⯪ (Advanced)
- JQuery : ★★★★⯪ (Advanced)
- Angular2 : ★★★★☆ (Experienced)
- HTML5,CSS3 : ★★★★☆ (Experienced)
- WPF : ★★★☆☆ (Effective)
- QT : ★★★⯪☆ (Effective)
- SQL Server : ★★★☆☆ (Effective)
- MongoDB : ★★⯪☆☆ (Intermediate)

WORK EXPERIENCE

Senior Software Developer   January 2021 - January 2023

C1 tech group — Mashhad, Khorasan-razavi, Iran

- Develop a **C++-based application** for **Operating Room Automation** with functionalities such as controlling lighting, energy consumption, surgery timers, air quality, gas alarms, and call systems using PJSip, among others.
- Spearheaded the design and development of a **customized Hospital Management System (HMS)** tailored for operating rooms.
- Developed several **applications based on C++ for medical systems** such as Clean Room Pass Boxes and Operating Room Gas Alarm systems.
- Develop a **C#-based integration application** for Operating Rooms to interact with HMS and PACS, and also enabling the capture and recording of live surgery sessions.
- Design user-friendly GUI using **QT widgets (C++)** for low-end devices and **QT QML** for high-end single board computers.
- Actively engaged in **cross-functional collaboration** with other departments, including engineering, quality control, and sales.

Senior Software Developer   January 2019 - January 2021

Sun and Air Research Institute — Mashhad, Khorasan-razavi, Iran

- Developed an innovative **Beckhoff PLC-based application** for a **Battery Palletizer Industrial robot**, achieving a 60% improvement in palletizing time and a 20% increase in palletizing accuracy.
- Actively participated in the enhancement of a Beckhoff PLC-based application for **Wind Turbine control**.
- Design a new **application for the data logging** from the wind turbine sensors.

Software Developer October 2016 - January 2019

FUM-CARE — Mashhad, Khorasan-razavi, Iran

- Developed a **Beckhoff PLC-based (TwinCat 2)** application specifically tailored for **6R and SCARA industrial robots**.
- Created a **C# application** dedicated to **trajectory generation** and **simplified robot position manipulation**, enhancing user experience.
- **Implemented** sophisticated **motion control algorithms**, **Kinematics** and **inverse kinematics**, collaborating closely with the engineering team to optimize robotic movements.

Projects

C1 HMS ⦿

This is the back-end API (Asp.net Core) for converting DWG files to list of primitive shapes to be displayed in web-application

C1 Control Panel ⦿

C1 control panel application (Qt qml & C++) to control operating rooms environment with voice command

Ahar High level system ⦿

A WPF based-application for communication with ahar plc

SixR-20 ⦿

A WPF based-application SixR industrial robot control and trajectory generation

Education

October 2014 – October 2017
Master of Science (M.S.) - **Artificial Intelligence and Robotics** at **Ferdowsi University of Mashhad**

October 2009 – October 2013
Bachelor of Science (B.S.) - **Computer Engineering – Software** at **Quchan University of Technology**

Languages

English Advanced (C1)
Persian Native